




is a bivalent radical selected from the group consisting of cyclohexane-1,4-diyl, unsubstituted or monosubstituted by CN, cyclohex-1-ene-1,4-diyl, cyclohex-2-ene-1,4-diyl,  $Z^1, Z^2$  are both H or both F.


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in (IV),  is a bivalent radical selected from the group consisting of pyridine-2,5-diyl, unsubstituted or monosubstituted by F, pyrimidine-2,5-diyl, unsubstituted or monosubstituted by F  
Z<sup>1</sup>, Z<sup>2</sup> are both H or both F,

10  $Z^3, Z^4$  are both H or both F



in (V),  is a bivalent radical selected from the group consisting of pyridine-2,5-diyl, unsubstituted or monosubstituted by F, pyrimidine-2,5-diyl, unsubstituted or monosubstituted by F

15  $Z^1, Z^2$  are both H or both F,

$Z^3, Z^4$  are both H or F, with the proviso that  $Z^1, Z^2$  and  $Z^3, Z^4$  are not simultaneously F


20 in (VI),  
 $Z^1, Z^2, Z^3, Z^4, Z^5, Z^6$  one element of this group is F or ( $Z^1$  and  $Z^2$ ) or ( $Z^3$   
 and  $Z^4$ ) are both F

in (VII),


$Z^1$  and  $Z^2$  are both H or both F;  $Z^3$  and  $Z^4$  are both H

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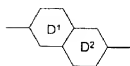


in (VIII),  is a bivalent radical selected from the group consisting of pyridine-2,5-diyl, unsubstituted or monosubstituted by F, pyrimidine-2,5-diyl, unsubstituted or monosubstituted by F



30  is a bivalent radical selected from the group consisting of phenylene-1,4-diyl, unsubstituted, monosubstituted or disubstituted by F, naphthalene-2,6-diyl, unsubstituted, monosubstituted or disubstituted by F, cyclohexane-1,4-diyl

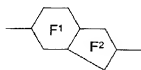
$p, q, s$  are each zero or 1; their sum is zero or 1



in (IX), is naphthalene-2,6-diyl which can be mono-substituted or disubstituted by F



- 5 is a bivalent radical selected from the group consisting of phenylene-1,4-diyl, unsubstituted, monosubstituted or disubstituted by F, pyridine-2,5-diyl, unsubstituted or monosubstituted by F, pyrimidine-2,5-diyl, unsubstituted or monosubstituted by F



- 10 in (X), is a bivalent radical selected from the group consisting of indane-2,5-diyl, unsubstituted, monosubstituted or disubstituted by F in the aromatic ring, indan-1-one-2,6-diyl, and possibly benzothiazole-2,6-diyl



- 15 is a bivalent radical selected from the group consisting of phenylene-1,4-diyl, unsubstituted, monosubstituted or disubstituted by F, pyridine-2,5-diyl, unsubstituted or monosubstituted by F, pyrimidine-2,5-diyl, unsubstituted or monosubstituted by F

p is 1

q is zero

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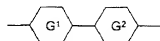
in (IX), is (1,3,4)-thiadiazole-2,5-diyl



- 25 is a bivalent radical selected from the group consisting of phenylene-1,4-diyl, unsubstituted, monosubstituted or disubstituted by F, pyridine-2,5-diyl, unsubstituted or monosubstituted by F, pyrimidine-2,5-diyl, unsubstituted or monosubstituted by F, cyclohexane-1,4-diyl

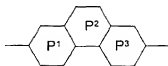
p is zero or 1

q is zero or 1, with the proviso that q is zero when p is 1



- 30 in (XII), is a bivalent radical selected from the group consisting of 1,1'-biphenyl-4,4'-diyl, unsubstituted, monosubstituted or

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A diagram showing a linear chain of three hexagonal units. The units are labeled  $U^1$ ,  $U^2$ , and  $U^3$  from left to right. Each unit is a hexagon with a line extending from its outer edge, indicating it is part of a larger chain.

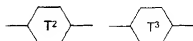
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